GOLF CLUB HEAD HAVING THIN CROWN

BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention relates generally to a golf club, and more particularly to a golf club head having a thin crown.

2. Description of the Related Art

For the purpose of driving the ball further, a golf club head is made to have a center of gravity closing to a bottom and rear side thereof. To have the center of gravity of the golf club head located close to the bottom and rear side, the golf club head has to be lighter at a top thereof. In the other words, a crown of the golf club head needs to be made as thinner as possible.

A conventional golf club head that has a thin crown usually has a thickness of the crown greater than 1 mm. Such a crown is usually made of metal or composite material, which is functional to lower the center of gravity of the golf club head. However, the conventional crown of the golf club head that has a thickness under 1 mm and is made of metal or composite material is inapplicable due to the problem of molding, the weak jointing strength between the crown and the ball-hitting plate of the golf club head, and the weak structure strength which leads the crown to be easily damaged while the golf club head hits balls repeatedly.

SUMMARY OF THE INVENTION

The primary objective of the present invention is to provide a golf club head, which has a crown having a relatively thinner thickness and higher structure strength than the conventional one.

According to the objective of the present invention, a golf club head comprises a main body having a front side on which a face plate is mounted, a bottom side, a rear side and a top side having an opening. A crown is mounted on the top side of the main body to seal the opening. The crown has a thickness less than 0.7 mm and a hardness greater than HRC 35.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view of a first preferred embodiment of the present invention.

FIG. 2 is a sectional view taken along line 2-2 of FIG. 1.

FIG. 3 is a sectional view of a second preferred embodiment of the present invention.

DETAILED DESCRIPTION OF THE INVENTION

As shown in FIG. 1 and FIG. 2, a golf club head of the first preferred embodiment of the present invention comprises a main body 20 and a crown 30.

The main body 20, which is hollow and has a shape substantially similar to the golf club head, has a front side 21, a bottom side 22 and a rear side 23. A face plate 24 is mounted on the front side 21 of the main body 20. The face plate 24 and the main body 20 are molded as a single unit. The main body 20 further has a top side 25 on which an opening 26 is provided.

The crown 30 is mounted on the top side 25 of the main body 20 to seal the opening 26 by brazing. In this embodiment, the crown 30 has a periphery portion attached on the whole top side 25 and firmly fixed thereon by brazing. As shown in FIG. 2, the crown 30 has a front edge aligned with an outer surface of the front side 24.

In other words, the front edge of the crown 30 is almost in flush with the upper edge of the front side.

The crown 30 is made having a hardness greater than HRC 35. When the crown 30 is made of metal, it has a density greater than 7 g/cm^3 and a thickness less than 0.5 mm. In this embodiment, the thickness of the crown 30 is about 0.35 mm. The crown 30 can be made of nonmetallic materials to keep the density lower than 5 g/cm^3 and the thickness less than 0.7 mm.

As shown in FIG. 3, a golf club head provided by the second preferred embodiment of the present invention comprises a main body 40 having a face plate 41 welded at a front side thereof and an opening 42 at a top side thereof. A crown 43 is mounted on the top side of the main body 40 to seal the opening 42. The top side of the main body 40 has an annular recess around the opening 42. The crown 43 has a periphery portion rested in the recess and mounted thereto by brazing. The crown 40 is made of a nonmetallic material having a thickness about 0.5 mm, a density less than 5 g/cm^3 and a hardness greater than HRC 35.

The golf club head provided by the present invention has a thickness efficiently lowering to less than 0.7 mm but still has a sufficient hardness that is greater than HRC 35, thereby keeping the center of gravity of the golf club head as lower as possible to enhance the ball-hitting efficiency under the condition of maintaining the structure strength of the golf club head in a certain level.